

## CLAIMS

1. A biaxially oriented polyester film, characterized in that the dimensional change rate (A) in the transverse direction of the film is in a range of -0.3 to 0% when the film is allowed to stand at  
5 49°C and 90% RH for 72 hours, while being loaded with 32 MPa in the machine direction.
2. A biaxially oriented polyester film, according to claim 1, wherein the ratio of the dimensional change rate (A) in the transverse direction under the conditions of claim 1 to the  
10 dimensional change rate (B) in the machine direction respectively in absolute value ( $|A|/|B|$ ) is in a range of 0.1 to 1.0.
3. A biaxially oriented polyester film, according to claim 1, wherein the heat shrinkage in the transverse direction at 100°C is in a range of 0 to 0.5%.
- 15 4. A biaxially oriented polyester film, according to claim 1, wherein the sum of the elastic modulus in the machine direction and that in the transverse direction is in a range of 9 to 30 GPa.
5. A biaxially oriented polyester film, according to claim 1, wherein the thickness variation in the machine direction is 5% or  
20 less.
6. A biaxially oriented polyester film, according to claim 1, which contains a polyether imide.
7. A biaxially oriented polyester film, according to claim 6, wherein the content of the polyether imide is 5 to 30 wt%.
- 25 8. A biaxially oriented polyester film, according to claim 7, which has a single glass transition temperature.
9. A biaxially oriented polyester film, according to claim 1, wherein the polyester is polyethylene terephthalate, polyethylene-2,6-naphthalene dicarboxylate or a copolymer thereof  
30 or a modification product thereof.

10. A biaxially oriented polyester film, according to claim 1, wherein the halfwidth in the circumferential direction of the diffraction peak of the crystal face in the principle direction of the polyester, obtained when the polyester film is revolved around its normal, in the crystal orientation analysis by wide angle X-ray diffractometry, is in a range of 55 to 85 degrees.

11. A method for producing a biaxially oriented polyester film, in which a cast film is stretched in the machine direction and in the transverse direction, stretched again in the machine direction and/or in the transverse direction, and heatset-treated and relaxation-treated, characterized by executing the relaxation treatment in two or more stages at a total relaxation rate of 5 to 10%.

12. A method for producing a biaxially oriented polyester film, comprising the steps of stretching a cast film in the machine direction and in the transverse direction, stretching at a small ratio of 1.01 to 1.3 times in the transverse direction at a temperature in a range of glass transition temperature ( $T_g$ ) to  $T_g + 50^\circ\text{C}$ , and stretching again in the machine direction and/or in the transverse direction.

13. A method for producing a biaxially oriented polyester film, in which a cast film is stretched in the machine direction and in the transverse direction, stretched at a small ratio of 1.01 to 1.3 times in the transverse direction at a temperature in a range of glass transition temperature ( $T_g$ ) to  $T_g + 50^\circ\text{C}$ , stretched again in the machine direction and/or in the transverse direction, and heatset-treated and relaxation-treated, characterized by executing the relaxation treatment in two or more stages at a total relaxation rate of 5 to 10%.

14. A method for producing a biaxially oriented polyester film, according to any one of claims 11 through 13, wherein when the cast film is stretched in the machine direction and in the transverse direction, it is stretched in two or more stages in the machine  
5 direction and/or in the transverse direction.

15. A magnetic recording medium, using the biaxially oriented polyester film as set forth in any one of claims 1 through 10.